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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/868,981	06/25/2002	Stuart A. Kauffman	042757/278580	6805
826	7590	09/25/2007		
ALSTON & BIRD LLP BANK OF AMERICA PLAZA 101 SOUTH TRYON STREET, SUITE 4000 CHARLOTTE, NC 28280-4000			EXAMINER MAGUIRE, LINDSAY M	
			ART UNIT 3692	PAPER NUMBER
			MAIL DATE 09/25/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

09/868,981

Applicant(s)

KAUFFMAN ET AL.

Examiner

Lindsay M. Maguire

Art Unit

3692

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-100 is/are pending in the application.
- 4a) Of the above claim(s) 1-67 and 75-100 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 68-74 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This Non-Final office action is in response to the application filed on June 25, 2002 and the response to the Election/Restriction requirement filed on September 6, 2007.

Claims 1-67 and 75-100 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected group, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on September 6, 2007.

### ***Abstract***

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text.

### ***Claim Objections***

Claim 69 is objected to because of the following informalities: the phrase, "identifies the umber of" in line 3 is considered to be grammatically incorrect as the word "umber" should be --number--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 68-74 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 69 recites the limitation "the umber" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claims 68-72 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: between the preamble that states that the method is for optimizing, while there is no actual step of optimization recited within the claims.

Claims 73 and 74 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: between the preamble that states that the code is for optimizing a portfolio, while there is no actual code for optimization of the portfolio recited in the claims.

The recitation, “over a space of portfolios” in lines 3-4 of claim 68, renders the claim indefinite as one of ordinary skill in the art would be unable to ascertain the requisite scope of the claim. Specifically, what is a “space of portfolios”? It is noted that similar instances of this phrase occur in claims 73 and 74.

The phrase, “searching for optional ones of said portfolio” in line 7 of claim 68 renders the claim indefinite as one of ordinary skill in the art would be unable to ascertain the requisite scope of the claim. Specifically, what are “optional ones”? It is noted that similar instances of this phrase occur in claims 73 and 74.

Claim 68 recites the limitation "said optimal distances" in line 8. There is insufficient antecedent basis for this limitation in the claim. Specifically claim 68 states in line 5, "at least one optimal searching distance". It is unclear if the phrase in line 8 is supposed to refer back to the phrase in line 5.

Claim 70 recites the limitation "the difference" in line 3. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 68-74 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

With respect to claims 68-74 Examiner finds these claims to lack concrete result as well as a tangible result. Examiner notes that the focus of this analysis is on the result, not the individual steps.

With respect to a concrete result, the process must have a result that can be substantially repeated. In this case, Examiner finds that the result of the claims (optimizing a portfolio of assets) to lack repeatability. First, the claimed steps do not necessarily guarantee an optimized portfolio. For example, a portfolio could already be

optimized and therefore performing these steps would no optimize the portfolio. In addition, the claims lack a baseline (i.e. the portfolio is optimized in comparison to what?). If there is no measure as to what the portfolio is being optimized to, then how can the steps be repeatable (or concrete).

In regards to the tangible result, the process must produce a real-world result. The Final step of independent claims 68, 73, and 74 states, "searching for optimal ones of said portfolio of assets at said optimal distances." This step does not actually include an implementation of the optimization of the portfolio and as such the Examiner finds that there is no tangible result.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made."

Claims 68-74 are rejected, insomuch as the claims can best be understood given the 112 and 101 rejections (as advanced above), under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,799,287 (Dembo '287).

Dembo '287 discloses optimization of a portfolio of assets comprising the steps of (abstract): determining a different economic models by extracting observables (i.e. a

fitness landscape; column 8, line 12 – column 11, line 15); and determining at least one optimal searching distance in the space of portfolios (column 10, line 49 – column 11, line 15); and searching for optimal distances (column 10, line 49 – column 11, line 15). Additionally, Dembo '287 discloses vectors used to identify numbers and differences in portfolios (column 8, line 12 – column 11, line 15). Furthermore, Dembo '287 discloses a value at risk (abstract), and the use of additional data when determining the fitness of the landscape (column 6, lines 66 – column 7, line 22).

### ***Conclusion***

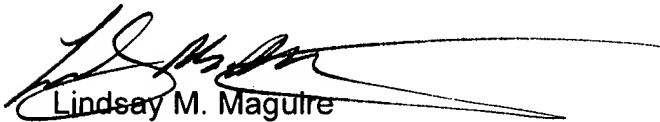
Examiner has pointed out particular references contained in the prior arts of record in the body of this action for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the response, to consider fully the entire references as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior arts of disclosed by the examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lindsay M. Maguire whose telephone number is 571-272-6039. The examiner can normally be reached on M-F: 7-4.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Abdi can be reached on (571) 272-6702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Lindsay M. Maguire  
9/20/07



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